

SEATTLE / KING COUNTY PUBLIC HEALTH
Community Environmental Health
Plumbing / Gas Piping Inspections

DECISIONS / INTERPRETATIONS
of the Chief Plumbing Inspector

Date: December 22, 2011

Decision No. 11-005

Subject: Circuit Venting

Code / Section: 2009 UPC Appendix L, Section L 8.0

Decision. Circuit venting systems designed in accordance with the provisions herein are acceptable, subject to the following conditions:

Plans and/or drawings of the piping system are required, and shall include the piping layout, sizing and vent locations. A plan review fee shall be required. The review fee is separate from the plumbing permit fees. Additionally, as-built drawings shall be required at final inspection. The following provisions are based on Appendix L, Section L 8.0 with some modifications:

Circuit Venting. Circuit venting shall be designed by a registered professional engineer or a certified journeyman plumber. A maximum of eight (8) fixtures connected to a horizontal branch drain shall be permitted to be circuit vented. Each fixture drain or trap arm shall connect horizontally to the horizontal branch being circuit vented, except for those fixtures discharging to a relief vent as provided for in Section L 8.4. The size and length of trap arms shall be in accordance with Chapter 10. The horizontal branch drain shall be classified as a vent from the most downstream fixture drain connection to the most upstream fixture drain connection to the horizontal branch.

Multiple Circuit-Vented Branches. Circuit-vented horizontal branch drains are permitted to be connected together. Each group of a maximum of eight (8) fixtures being circuit vented shall be considered a separate circuit vent and shall conform to the requirements of this section.

Vent Size and Connection. The circuit vent shall be a minimum of one-half the diameter of the drain served, but in no case less than two (2) inches (50 mm) in diameter and the connection shall be located between the most upstream trap arm and the next downstream trap arm or fixture drain. The vent shall connect to the horizontal branch on the vertical and shall be installed in accordance with Section 905. The circuit vent pipe shall not receive the discharge of any soil or waste.

Slope and Size of Horizontal Branch. The maximum slope of the vent section of the horizontal branch drain shall be one (1) inch per foot (83.2 mm/m). The entire length of the vented section of the horizontal branch drain shall be sized for the total drainage discharge to the branch.

Size of Multiple Circuit Vent. Multiple circuit vented branches shall be permitted to connect on the same floor level. Each separate circuit-vented horizontal branch that is interconnected shall be sized independently in accordance with Chapter 7. The downstream circuit-vented horizontal branch shall be sized for the total discharge into the branch, including the upstream branches and the fixtures within the branch.

Relief Vent. A relief vent shall be provided for circuit-vented horizontal branches receiving the discharge of four or more water closets and connecting to a drainage stack that receives the discharge of soil or waste from upper horizontal branches. The relief vent shall be a minimum of one-half the diameter of the drain served, but in no case less than two (2) inch (50 mm) in diameter.

Connection and Installation. The relief vent shall connect to the horizontal branch drain between the stack and the most downstream fixture drain of the circuit vent. The relief vent shall be installed on the vertical to the horizontal branch.

Fixture Drain or Branch. The relief vent is permitted to be a fixture drain or fixture branch for ~~a~~ fixtures located within the same branch interval as the circuit-vented horizontal branch. The maximum discharge to a relief vent shall be four fixture units.

Additional Fixtures. Fixtures, other than the circuit-vented fixtures, are permitted to discharge to the horizontal branch drain. Such fixtures shall be located on the same floor as the circuit-vented fixtures and shall be either individually or common vented. Such fixture drains shall connect horizontally to the horizontal branch being circuit vented, except as provided for in Section L 8.4.2.

Effective Date: December 22, 2011



Dave W Cantrell
Chief Plumbing Inspector

